

I. AMENDMENT OF THE CLAIMS

This listing of the claims shall replace all prior versions, and listings, of the claims in the application.

Listing of Claims:

Claim 1. (Currently Amended) A transgenic mouse ~~non-human animal~~ whose genome comprises a nucleotide sequence encoding a trans-synaptic tracer protein operably linked to a neuron specific promoter, wherein the trans-synaptic tracer protein is expressed in neurons of interest.

Claim 2. (Currently Amended) The transgenic mouse ~~non-human animal~~ according to claim 1, wherein the trans-synaptic tracer protein is selected from the group consisting of wheat germ agglutinin, Con A, PSA and LCA.

Claim 3. (Currently Amended) The transgenic mouse ~~non-human animal~~ according to claim 1, wherein the trans-synaptic tracer protein is wheat germ agglutinin.

Claim 4. (Previously Presented) A method for screening for substances having an effect upon cultured neurons, which comprises:

- a) creating cultured neurons according to claim 6,
 - b) administering a test substance to a first group of the cultured neurons;
 - c) determining the expression level of the trans-synaptic tracer protein in the first group of cultured neurons;
 - d) determining the expression level of the trans-synaptic tracer protein in a second group of the cultured neurons as a control; and
 - e) comparing the expression level of the trans-synaptic tracer protein in the first group of cultured neurons to the expression level of the trans-synaptic protein in the second group of cultured neurons;
- wherein a measurable difference in expression provides an indication of the effect of the test substance.

Claim 5. (Cancelled)

Claim 6. (Currently Amended) A cultured neuron expressing a trans-synaptic tracer protein established from the transgenic mouse ~~non-human animal~~ according to claim 1, said cultured neuron being derived from a body tissue of said transgenic animal expressing said trans-synaptic tracer protein.

Claim 7. (Previously Presented) The method according to claim 4, wherein the effect of the test substance is an effect chosen from among the group consisting of effect upon cell survival and maintenance, dendrite extension, synapse formation, enzymatic activity and neurotransmitter production.

Claims 8-10. (Cancelled)

Claim 11. (Currently Amended) The transgenic mouse ~~non-human animal~~ according to claim 1, wherein the neuron specific promoter is a cerebellar Purkinje cell-specific promoter or olfactory receptor cell-specific promoter.

Claim 12. (Currently Amended) The transgenic mouse ~~non-human animal~~ according to claim 11, wherein the neuron specific promoter is a cerebellar Purkinje cell-specific L7 promoter or olfactory receptor cell-specific OMP promoter.

Claims 13-20. (Cancelled)